ABSTRAK

Tujuan penelitian ini untuk mengetahui pengaruh variasi jumlah ikan nila (*Oreochromis nilotics*) terhadap pertumbuhan tanaman sawi pagoda (*Brassica narinosa*) dengan sistem akuaponik. Penelitian menggunakan Rancangan Acak Lengkap (RAK) dengan tiga perlakuan dan sembilan ulangan. Perlakuan pada penelitian adalah perbedaan jumlah ikan (40, 60 dan 80 ekor) yang digunakan pada sistem akuaponik. Penelitian dilakukan selama 45 hari, parameter yang diamati adalah jumlah daun, kandungan klorofil total dan berat basah tanaman sawi pagoda (*Brassica narinosa*). Data hasil penelitian dianalisis menggunakan uji *Analysy of Variance*, jika berpengaruh signifikan maka analisis dilanjutkan dengan uji *Duncan Multiple Range Test* (DMRT). Hasil *Analysy of Variance* jumlah daun dan kandungan klorofil total tanaman sawi pagoda (*Brassica narinosa*) pada penelitian ini menunjukkan hasil yang signifikan yakni ($P<0,05$), pada berat basah didapatkan signifikasi 0,077 ($P>0,05$). Dapat disimpulkan bahwa variasi jumlah ikan nila berpengaruh terhadap jumlah daun dan kandungan klorofil total, tetapi tidak berpengaruh terhadap berat basah tanaman sawi pagoda (*Brassica narinosa*). Hasil uji *Duncan Multiple Range Test* (DMRT) menunjukkan bahwa jumlah ikan nila 80 ekor paling berpengaruh terhadap jumlah daun dan klorofil total.

Kata Kunci: Akuaponik, Ikan Nila, Sawi Pagoda, Pertumbuhan.

ABSTRACT

The purpose of this study was to determine the effect of variations in the number of tilapia (*Oreochromis nilotics*) on the growth of Pagoda mustard (*Brassica narinosa*) with aquaponic systems. The study used a completely randomized design (RAK) with three treatments and nine replications. The treatment in this study was the difference in the number of fish (40, 60 and 80 fish) used in the aquaponics system. The study was conducted for 45 days, the parameters observed were the number of leaves, total chlorophyll content and wet weight of the mustard mustard plant (*Brassica narinosa*). The research data were analyzed using the Analysis of Variance test, if it had a significant effect then the analysis was continued with the Duncan Multiple Range Test (DMRT) test. The results of the analysis of variance in the number of leaves and the total chlorophyll content of the Pagoda mustard plant (*Brassica narinosa*) in this study showed significant results ($P<0.05$), the wet weight obtained a significance of 0.077 ($P>0.05$). It can be concluded that variations in the number of tilapia affect the number of leaves and total chlorophyll content, but have no effect on the wet weight of Pagoda mustard greens (*Brassica narinosa*). The results of the Duncan Multiple Range Test (DMRT) showed that the number of tilapia fish had the most effect on the number of leaves and total chlorophyll.

Keywords: Aquaponics, Tilapia, Mustard Pagoda, Growth.